

REMARKS

Claims 1-54 are pending in this application. Claims 11 and 50 are amended. Claims 55-58 are added. No new matter is added by these amendments or additions.

Claim 11 is amended to incorporate the limitation of claim 18, which itself is canceled.

Claim 50 is amended to correct a typographical error.

Claim 55 is added, which combines several features of claims 38-44, 46, 50, and 52.

Claims 56 and 57 are added, and describe methods for preparing a probing tool comprising providing a nanotube at least partially coated with a biocompatible coating comprising silica capable of absorbing bioreactive molecules. Support for these amendments are found, *inter alia*, in original claim 38.

Claim 58 is added to describe a probing method comprising contacting a vesicle with a nanoprobe, said nanotube being at least partially coated with a biocompatible coating comprising silica to form a bio-functional nanoprobe. Support for this amendment is found, *inter alia*, in original claim 38.

Applicants wish to thank Examiner Miller for the courtesy extended to their representative, Thomas Dekleva, during their telephonic interview of April 6, 2010, during which they discussed the option for amending at least one claim so that each of the four groups listed below have the special technical feature described below, and during which the Examiner took no position. Also, Dr. Dekleva and Examiner Miller discussed the requirement for an election of species, at which time Examiner Miller indicated that, despite the language of the Office Action, he had not intended to issue a requirement for an election of species.

Restriction Requirement

Claims 1-54 are allegedly not so linked as to form a single general inventive concept under PCT Rule 13.1 and so are allegedly subject to restriction under 37 CFR 1.499 as follows:

- Group I: Claims 1-10, drawn to probe;
- Group II: Claims 11-22, drawn to a probe system;

- Group III: Claims 23-37, drawn to a method of probing;
Group IV: Claims 38-54, drawn to another method of probing;

The restriction requirement also specifies that the Applicant is required to elect a single species to which the claim shall be restricted if no generic claim is held to be allowable (but see comments related to Examiner interview above).

Applicants traverse this restriction for reasons given below. Without acquiescing to the present requirement, in an effort to advance prosecution, Applicants nonetheless elect the subject matter of Group IV (Claims 38-54) for initial examination. Applicants also submit that new claim 55 falls within Group IV, as including several of the features of the claims depending on claim 38. Accordingly, despite the Examiner's oral position that such an election is not required, Applicants select as its single disclosed species, the method of claim 55. Applicants make such elections with traverse and expressly reserve the right to rejoin the non-elected or original claims and / or pursue the subject matter of the non-selected or original claims in one or more continuing or divisional application(s).

According to PCT RULE 13.2 (Circumstances in Which the Requirement of Unity of Invention Is to Be Considered Fulfilled) and 37 CFR § 1.475(a):

Where a group of inventions is claimed in one and the same international application, the requirement of unity of invention referred to in Rule 13.1 shall be fulfilled only when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical features. The expression "special technical features" shall mean those technical features that define a contribution which each of the claimed inventions, ***considered as a whole***, makes over the prior art. (emphasis added)

Further, 37 CFR § 1.475(b)(2) (and the M.P.E.P. § 1.475) describes:

(b) An international or a national stage application containing claims to different categories of invention ***will be considered to have unity of invention if the claims are*** drawn only to one of the following combinations of categories . . .

(3) ***A product, a process specially adapted for the manufacture of the said product, and a use of the said product***, . . . (emphasis added).

The Examiner is correct insofar as PCT Rule 13.2 requires a single general inventive concept to share a same or corresponding special technical feature, and allows the Examiner

the option to restrict *only when* this single general inventive concept is not met. According to the Office Action of record, the inventions listed as Groups I-IV do not relate to a general inventive concept under PCT Rule 13.1, because:

Although in the instant case the common inventive feature would be “a nanotube partially coated with a biocompatible coating capable of absorbing bioreactive molecules” common to all of the claims. The common technical feature is not considered inventive in that it is taught in the prior art . . . [according to Lieber, U.S. 6,159,742].

Applicants submit that the common inventive feature of the four groups is actually “a nanotube partially coated with a biocompatible coating *comprising silica* capable of absorbing bioreactive molecules,” or a method of making or using the same.

As the Examiner acknowledges (page 3, section 2, lines 8-12), Lieber teaches a carbon-based tip for scanning probe microscopy wherein the molecular probe, M, is bonded to the nanotube, X, by a linking group, L. However, according to Lieber, the linking group is joined directly to the nanotube by a functional moiety selected from the group consisting of amino, amido, carbonyl, carboxyl, alkyl, aryl, ether, and ester. [Lieber, col. 1, lines 59-61]. A search of Lieber provides no mention even of the terms “silica” or “silicon dioxide,” much less as a required component of the coating. Moreover, there is no evidence in Lieber that the nanotubes themselves possess any coatings (except for the linking groups, and an adhesive to connect the nanotube to a probe cantilever), much less coatings capable of absorbing bioreactive molecules.

Applicants submit that the present invention possesses a single inventive concept, as described above, and that this inventive concept is novel, at least in the face of the cited references. Also, newly added claims 55-58 also contain this “special technical feature” or a method of making or using the same, and so should be considered within this single inventive concept. Applicants therefore request that the Examiner reconsider this present restriction requirement, including the new claims, in light of the these arguments.

Applicants believe that the foregoing constitutes a complete and full response to the Office Action of record. Accordingly, an early and favorable action is respectfully requested.

The Commissioner is hereby authorized to charge any fee deficiency, charge any additional fees, or credit any overpayment of fees, associated with this application in

DOCKET NO.: UPNA-0083
Application No.: 10/582,660
Office Action Dated: January 21, 2010

PATENT

connection with this filing, or any future filing, submitted to the U.S. Patent and Trademark Office during the pendency of this application, to Deposit Account No. 23-3050.

Date: April 15, 2010

/Thomas W. Dekleva/

Thomas W. Dekleva, Ph.D.
Registration No. 55,104

Woodcock Washburn LLP
Cira Centre
2929 Arch Street, 12th Floor
Philadelphia, PA 19104-2891
Telephone: (215) 568-3100
Facsimile: (215) 568-3439